DtF Decision Support System

THE TOOL
What is it?

• The DtF DSS is an excel based decision support system allowing decision makers to find the best suitable solution, based on past experience, for achieving port related strategic objectives.
DSS Rationale

Ongoing challenges
Port decision makers face multi-dimensional challenges with investments impacted by:

- Long term goals vs short term conflicting interests
- Stakeholders’ competition
- Interconnected decision making processes

Open issues
Therefore, port decision makers need to:

- Cope with multi-dimensional issues and critical challenges
- Find ways to simplify the research for feasible solutions
- Promote long term port development, assuring short term value for port stakeholders
A potential problem scenario

We might look at ways to reduce emissions.. but at the same time we might want to reduce port activities’ negative impacts on local community!

E.g., by promoting alternative fuels

..but as demonstrated by relevant protests, this might increase conflicts with local communities..
DSS Objectives

The DSS is a valuable tool for understanding which measures, projects and initiatives need to be pursued in order to achieve ports’ high level strategic objectives

• To help in selecting the “right” *initiatives* to achieve a series of Strategic Objectives chosen by the *user*

• To support complex decision-making processes in which there is a multi-objective function
DSS Interface

Basic interface:
Select Strategic Objectives

Sorted Projects

Projects details

Suggested measures to investigate
DSS Interface

Basic interface:
Select Measures

Strategic Objective that can be pursued via the selected measures

Sorted Projects

Projects details
DSS Limitations

• The effective use of the tool is influenced by:
  – Database reliance and interdependence
  – Missing key indicators on performance and transferability
  – The contextualization of the measures and their applicability to the specific context is up to the user (i.e., further analysis will be needed)
Further development

• In respect to the first released version, future DSS apps will:
  – Embed other DtF outputs (e.g. PCI and TA-score)
  – Guarantee full interoperability
  – Enlarge the number of initiatives considered
Decision Support System (DSS)
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